



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

December 18, 2003

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.in.gov/idem](http://www.in.gov/idem)

TO: Interested Parties / Applicant

RE: The P.D. George Company / 003-16740-00327

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

## Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER.dot 9/16/03



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6015

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## MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**The PD George Company  
4300 New Heaven Avenue  
Fort Wayne, Indiana 46803**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

|   |  |
|---|--|
| Operation Permit No.: MSOP 003-16740-00327  |  |
| Issued by: Original signed by<br>Paul Dubenetzky, Branch Chief<br>Office of Air Quality | Issuance Date: <b>December 18, 2003</b><br><br>Expiration Date: <b>December 18, 2008</b> |

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary enamel manufacturing plant.

|                         |   |
|-------------------------|---|
| Authorized Individual:  | President   |
| Source Address:         | 4300 New Heaven Avenue, Fort Wayne, Indiana 46803   |
| Mailing Address:        | 5200 North Second Street, St. Louis Missouri 63147  |
| General Source Phone:   | (314) 621-5700  |
| SIC Code:               | 2821, 2851  |
| County Location:        | Allen   |
| Source Location Status: | Attainment for all criteria pollutants  |
| Source Status:          | Minor Source, under PSD Rules;<br>Minor Source, Section 112 of the Clean Air Act<br>1 of 28 Source Categories |

### A.2 Emissions Units and Pollution Control Equipment Summary

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This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) enamel production operation, with a maximum throughput rate of 6,780 pounds of enamel per hour, controlled by six (6) baghouses and one (1) mist eliminator, exhausting through stacks 0260, 0374, 0262, 0261, 0377, 0272, and 0278, consisting of the following:
  - (1) Seven (7) mixers, identified as mixer #1 through mixer #7, constructed in 1977, each with a maximum capacity of 500, 1,000, 1,500, 500, 1,500, 1,500, and 100 gallons, respectively.
  - (2) Four (4) reactors, identified as reactors #8 through reactor #11, constructed in 1977, each with a maximum capacity of 2,000, 2000, 750, and 3,000 gallons, respectively.
  - (3) Two (2) mixer/reactors, identified as MR #13 and MR #14, constructed in 1977 each with a maximum capacity of 500 and 300 gallons, respectively.
  - (4) One (1) amideimide reactor, identified as Reactor AI, constructed in 1977, with a maximum capacity of 2,000 gallons.
  - (5) One (1) cutting tank, identified as T12, constructed in 1977, with a maximum capacity of 6,000 gallons.
  - (6) One (1) amideimide cutting tank, identified as T-AI, constructed in 1977, with a maximum capacity of 2,000 gallons.
  - (7) One (1) mix tank, identified as Q mixer, constructed in 1997, with a maximum capacity of 1,400 gallons.

- (b) One (1) natural gas fired boiler, constructed in 1983, with a maximum heat input capacity of 1 MMBtu/hr.
- (c) Twenty (20) storage tanks, constructed in 1991, each with a maximum capacity of 15,000 gallons.
- (d) Twenty (20) storage tanks, constructed in 1991, each with a maximum capacity of 10,000 gallons.
- (e) Six (6) storage tanks, constructed before 1974, each with a maximum capacity of 1,000 gallons.
- (f) One (1) storage tank, constructed in 1986, with a maximum capacity of 4,600 gallons.
- (g) One (1) storage tank, constructed in 1992, with a maximum capacity of 1,400 gallons.

## **SECTION B                      GENERAL CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **B.1      Permit No Defense [IC 13]**

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This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### **B.2      Definitions**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

### **B.3      Effective Date of the Permit [IC13-15-5-3]**

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Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

### **B.4      Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]**

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This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

### **B.5      Modification to Permit [326 IAC 2]**

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All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

### **B.6      Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

- (d) The notification shall be considered timely if the date postmarked on the envelope or

certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due.

**B.7 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days, after issuance of this permit, including the following information on each emissions unit:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMP's shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]**

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- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015



Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

**B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC13-30-3-1]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]**

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Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**B.11 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

## SECTION C SOURCE OPERATION CONDITIONS

|               |
|---------------|
| Entire Source |
|---------------|

**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Permit Revocation [326 IAC 2-1.1-9]**

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

**C.3 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.4 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
  - (A) Asbestos removal or demolition start date;
  - (B) Removal or demolition contractor; or
  - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

## Testing Requirements

### C.5 Performance Testing [326 IAC 3-6]

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- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the

provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### **Compliance Requirements [326 IAC 2-1.1-11]**

##### **C.6 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

#### **Compliance Monitoring Requirements**

##### **C.7 Compliance Monitoring [326 IAC 2-1.1-11]**

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

##### **C.8 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]**

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

#### **Record Keeping and Reporting Requirements**

##### **C.9 Malfunctions Report [326 IAC 1-6-2]**

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Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.10 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.11 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Facility Description [326 IAC 2-6.1]:

- (a) One (1) enamel production operation, with a maximum throughput rate of 6,780 pounds of enamel per hour, controlled by six (6) baghouses and one (1) mist eliminator, exhausting through stacks 0260, 0374, 0262, 0261, 0377, 0272, and 0278, consisting of the following:
- (1) Seven (7) mixers, identified as mixer #1 through mixer #7, constructed in 1977, each with a maximum capacity of 500, 1,000, 1,500, 500, 1,500, 1,500, and 100 gallons, respectively.
  - (2) Four (4) reactors, identified as reactors #8 through reactor #11, constructed in 1977, each with a maximum capacity of 2,000, 2000, 750, and 3,000 gallons, respectively.
  - (3) Two (2) mixer/reactors, identified as MR #13 and MR #14, constructed in 1977 each with a maximum capacity of 500 and 300 gallons, respectively.
  - (4) One (1) amideimide reactor, identified as Reactor AI, constructed in 1977, with a maximum capacity of 2,000 gallons.
  - (5) One (1) cutting tank, identified as T12, constructed in 1977, with a maximum capacity of 6,000 gallons.
  - (6) One (1) amideimide cutting tank, identified as T-AI, constructed in 1977, with a maximum capacity of 2,000 gallons.
  - (7) One (1) mix tank, identified as Q mixer, constructed in 1997, with a maximum capacity of 1,400 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1]

#### D.1.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of the mixers and reactors shall not exceed the pound per hour limit listed in the

table  
below:

| Unit ID     | Max. Throughput Rate of the Product (lbs/hr) | Particulate Emission Limit (lbs/hr) |
|-------------|--|-------------------------------------|
| Mixer #1    | 128  | 0.65                                |
| Mixer #2    | 255  | 1.03                                |
| Mixer #3    | 383  | 1.35                                |
| Mixer #4    | 128  | 0.65                                |
| Mixer #5    | 383  | 1.35                                |
| Mixer #6    | 383  | 1.35                                |
| Mixer #7    | 26   | 0.551                               |
| Reactor #8  | 511  | 1.64                                |
| Reactor #9  | 511  | 1.64                                |
| Reactor #10 | 192  | 0.85                                |
| Reactor #11 | 766  | 2.16                                |
| MR #13      | 128  | 0.65                                |
| MR #14      | 77   | 0.551                               |
| Reactor AI  | 511  | 1.64                                |
| T12         | 1,532  | 3.43                                |
| T-AI        | 511  | 1.64                                |
| Q Mixer     | 358  | 1.29                                |

The pounds per hour limitation was calculated with the following equation:

- (a) Interpolation of the data for the process weight between one hundred (100) to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where} \quad \begin{array}{l} E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour} \end{array}$$

- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions shall not exceed 0.551 lbs/hr when the maximum process weight rate is less than 100 lbs/hr.

#### **Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

##### **D.1.2 Particulate**

In order to comply with Condition D.1.1, the mist eliminator and the baghouses used to control particulate emissions from the mixers and reactors shall be in operation and control emissions from the mixers and reactors at all times the these units are processing dry materials.



## **Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

### **D.1.3 Broken or Failed Bag Detection**

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In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Malfunctions Report).

## SECTION D.2

## EMISSIONS UNIT OPERATION CONDITIONS

### Facility Description [326 IAC 2-6.1]:

- (b) One (1) natural gas fired boiler, constructed in 1983, with a maximum heat input capacity of 1 MMBtu/hr.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1]

#### D.2.1 Particulate Emissions [326 IAC 6-2-4]

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Pursuant to 326 IAC 6-2-4 (a) (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the 1.0 MMBtu/hr boiler shall be limited to 0.6 pounds per MMBtu heat input.

### SECTION D.3

### EMISSIONS UNIT OPERATION CONDITIONS

**Facility Description [326 IAC 2-6.1]:**

- (c) Twenty (20) storage tanks, constructed in 1991, each with a maximum capacity of 15,000 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-6.1]****D.3.1 Volatile Organic Compounds (VOCs) [326 IAC 12-1][40 CFR 60.116b, Subpart Kb]**

Pursuant to 40 CFR 60.116b, Subpart Kb (New Source Performance Standards for Volatile Organic Liquid Storage Vessels), the 15,000 gallon storage tanks are subject to 40 CFR 60.116b, paragraphs (a) and (b) which requires record keeping.

**Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]****D.3.2 Record Keeping Requirements**

- (a) To document compliance with Conditions D.3.1, the Permittee shall maintain records for the life of the source in accordance with (1) through (2) below:
- (1) The dimension of the storage vessel; and
  - (2) An analysis showing the capacity of the storage vessel.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.4

## EMISSIONS UNIT OPERATION CONDITIONS

### Facility Description [326 IAC 2-6.1]:

- (d) Twenty (20) storage tanks, constructed in 1991, each with a maximum capacity of 10,000 gallons.
- (e) Six (6) storage tanks, constructed before 1974, each with a maximum capacity of 1,000 gallons.
- (f) One (1) storage tank, constructed in 1986, with a maximum capacity of 4,600 gallons.
- (g) One (1) storage tank, constructed in 1992, with a maximum capacity of 1,400 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1]

There are no specifically applicable requirements that apply to these emission units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

|                      |                                  |
|----------------------|----------------------------------|
| <b>Company Name:</b> | <b>The PD George Company</b>     |
| <b>Address:</b>      | <b>4300 New Heaven Avenue</b>    |
| <b>City:</b>         | <b>Fort Wayne, Indiana 46803</b> |
| <b>Phone #:</b>      | <b>(314) 621-5700</b>            |
| <b>MSOP #:</b>       | <b>003-16740-00327</b>           |

I hereby certify that The PD George Company is

☒ still in operation.

☐ no longer in operation.

I hereby certify that The PD George Company is

☒ in compliance with the requirements of  
MSOP 003-16740-00327

☐ not in compliance with the requirements of  
MSOP 003-16740-00327

|                                       |
|---------------------------------------|
| <b>Authorized Individual (typed):</b> |
| <b>Title:</b>                         |
| <b>Signature:</b>                     |
| <b>Date:</b>                          |

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

|                       |
|-----------------------|
| <b>Noncompliance:</b> |
|                       |
|                       |
|                       |





\*SEE PAGE 2

PAGE 1 OF 2



**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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**ISSUED December 18, 2003**

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a  
Minor Source Operating Permit**

**Source Background and Description**

Source Name: The PD George Company  
Source Location: 4300 New Heaven Avenue, Fort Wayne, Indiana 46803  
County: Allen  
SIC Code: 2821, 2851  
Operation Permit No.: 003-16740-00327  
Permit Reviewer: ERG/YC

The Office of Air Quality (OAQ) has reviewed an application from The PD George Company, Fort Wayne, Indiana 46803 relating to the operation of an enamel manufacturing plant.

**History**

On January 29, 2003, The PD George Company submitted an application to IDEM, OAQ for an operating permit. The operations at this source originally belonged to Phelps Dodge Magnet Wire Company (Plant ID # 003-00013), which is an existing wire coating facility. The PD George Company purchased the enamel manufacturing line from Phelps Dodge Magnet Wire Company in December 1999. The enamel production process was permitted to construct in CP #003-8609-00013, which was issued to Phelps Dodge Wire Magnet Company on October 17, 1997. A part 70 permit (T003-6925-00013) was issued to Phelps Dodge Magnet Wire Company on October 10, 2002, which does not include the units at The PD George Company.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) enamel production operation, with a maximum throughput rate of 6,780 pounds of enamel per hour, controlled by six (6) baghouses and one (1) mist eliminator, exhausting through stacks 0260, 0374, 0262, 0261, 0377, 0272, and 0278, consisting of the following:
  - (1) Seven (7) mixers, identified as mixer #1 through mixer #7, constructed in 1977, each with a maximum capacity of 500, 1,000, 1,500, 500, 1,500, 1,500, and 100 gallons, respectively.
  - (2) Four (4) reactors, identified as reactors #8 through reactor #11, constructed in 1977, each with a maximum capacity of 2,000, 2000, 750, and 3,000 gallons, respectively.

- (3) Two (2) mixer/reactors, identified as MR #13 and MR #14, constructed in 1977 each with a maximum capacity of 500 and 300 gallons, respectively.
- (4) One (1) amideimide reactor, identified as Reactor AI, constructed in 1977, with a maximum capacity of 2,000 gallons.
- (5) One (1) cutting tank, identified as T12, constructed in 1977, with a maximum capacity of 6,000 gallons.
- (6) One (1) amideimide cutting tank, identified as T-AI, constructed in 1977, with a maximum capacity of 2,000 gallons.
- \*(7) One (1) mix tank, identified as Q mixer, constructed in 1997, with a maximum capacity of 1,400 gallons.
- \*(b) One (1) natural gas fired boiler, constructed in 1983, with a maximum heat input capacity of 1 MMBtu/hr.
- \*(c) Twenty (20) storage tanks, constructed in 1991, each with a maximum capacity of 15,000 gallons.
- \*(d) Twenty (20) storage tanks, constructed in 1991, each with a maximum capacity of 10,000 gallons.
- \*(e) Six (6) storage tanks, constructed before 1974, each with a maximum capacity of 1,000 gallons.
- \*(f) One (1) storage tank, constructed in 1986, with a maximum capacity of 4,600 gallons.
- \*(g) One (1) storage tank, constructed in 1992, with a maximum capacity of 1,400 gallons.
- \*Note: These emissions units have never been permitted before. However, the potential to emit from these units are less than the exemption thresholds in 326 IAC 2-1.1-3(e)(1). Therefore, these units were exempt from the permitting requirements when they were constructed.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **New Emission Units and Pollution Control Equipment Receiving Prior Approval**

There are no new construction activities included in this permit.

#### **Existing Approvals**

No previous approvals have been issued to this source.

#### **Source Definition**

There are two (2) companies located at this location:

- (a) The PD George Company, an enamel manufacturing plant (SIC Code: 2851 and 2821), located at 4300 New Heaven Avenue, Fort Wayne, Indiana 46803 (Plant ID #003-00327); and

- (b) Phelps Dodge Magnet Wire Company, a wire coating facility (SIC Code: 3357), located at 4300 New Heaven Avenue, Fort Wayne, Indiana 46803 (Plant ID #003-00013).

These two (2) companies have different SIC codes and are not under common control. In addition, The PD George Company supplies enamel to Phelps Dodge Magnet Wire Company as well as other companies. Therefore, IDEM, OAQ determined that these two (2) companies are considered two (2) separate sources. This determination was made during the review for Phelps Dodge Magnet Wire Company's Part 70 Permit (T003-6925-00013, issued on October 10, 2002).

### Enforcement Issue

- (a) IDEM is aware that the source did not apply for a Minor Source Operating Permit after purchasing the enamel production line from Phelps Dodge Magnet Wire Company in December 1999 and has been operating prior to receipt of the proper permit. The operating permit application was received on January 29, 2003.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 29, 2003, with additional information received on March 17, 2003, April 23, 2003, August 5, 2003, and August 7, 2003.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 3).

### Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant       | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM              | 69.8                          |
| PM10            | 69.8                          |
| SO <sub>2</sub> | Negligible                    |
| VOC             | 44.5                          |
| CO              | 0.37                          |
| NO <sub>x</sub> | 0.44                          |

| HAP's      | Potential To Emit (tons/year) |
|------------|-------------------------------|
| Xylene     | 8.20                          |
| Other HAPs | 9.90                          |
| Total      | 18.1                          |

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM, PM10, and VOC are greater than 25 tons per year, therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (c) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year, therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (d) Fugitive Emissions  
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD applicability.

#### Potential to Emit After Issuance

The table below summarizes the total potential to emit, reflecting all limits, of the emission units before control.

|                                 | Potential to Emit<br>(tons/year) |       |                 |                |      |                 |   |
|---------------------------------|----------------------------------|-------|-----------------|----------------|------|-----------------|---|
| Process/facility                | PM                               | PM-10 | SO <sub>2</sub> | VOC            | CO   | NO <sub>x</sub> | HAPs  |
| Mixers and Reactors             | 69.8                             | 69.8  | -               | 39.5           | -    | -               | 13.1  |
| Boiler                          | 0.03                             | 0.03  | Negligible      | 0.02           | 0.37 | 0.44            | Negligible  |
| Storage Tanks                   | -                                | -     | -               | Less than 5.0  | -    | -               | Less than 5.0   |
| Total PTE of the Entire Source  | 69.8                             | 69.8  | Negligible      | Less than 44.5 | 0.37 | 0.44            | Less than 18.1  |
| Title V Major Source Thresholds | NA                               | 100   | 100             | 100            | 100  | 100             | 10 for a single HAP and 25 for any combination of HAPs. |

#### County Attainment Status

The source is located in Allen County.

| Pollutant | Status     |
|-----------|------------|
| PM10      | Attainment |

|                 |            |
|-----------------|------------|
| SO <sub>2</sub> | Attainment |
| NO <sub>2</sub> | Attainment |
| Ozone           | Attainment |
| CO              | Attainment |
| Lead            | Attainment |

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Allen County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions  
Since this type of operation is in one of the 28 listed source categories under 326 IAC 2-2, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD applicability.

#### Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

| Pollutant       | Emissions<br>(ton/year) |
|-----------------|-------------------------|
| PM              | 69.8                    |
| PM10            | 69.8                    |
| SO <sub>2</sub> | Negligible              |
| VOC             | 44.5                    |
| CO              | 0.37                    |
| NO <sub>x</sub> | 0.44                    |

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is in one of the 28 listed source categories.
- (b) These emissions were based on the potential to emit before control from the entire source.

#### Part 70 Permit Determination

##### 326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

### **Federal Rule Applicability**

- (a) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) The 1 MMBtu/hr boiler has a maximum heat input less than 10 MMBtu/hr and was constructed before June 9, 1989. Therefore, the New Source Performance Standards for Small Industrial - Commercial - Institutional Steam generating Units (40 CFR 60.40c-48c, Subpart Dc) are not applicable to this boiler
- (c) All the tanks at this source do not store petroleum liquids and have the capacities less than 40,000 gallons. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after June 11, 1973, and Prior to May 19, 1978 (40 CFR 60.110 - 113, Subpart K) are not applicable to these tanks.
- (d) All the tanks at this source do not store petroleum liquids and have the capacities less than 40,000 gallons. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after May 19, 1978 (40 CFR 60.110a - 115a, Subpart Ka) are not applicable to these tanks.
- (e) Twenty (20) of the storage tanks at this source have capacities greater than 40 cubic meters (10,560 gallons) and were constructed after July 23, 1984. Therefore, the New Source Performance Standards for Volatile Organic Liquid Storage Vessels for which construction, reconstruction, or modification commenced after July 23, 1984 (40 CFR 60.110b - 117b, Subpart Kb) are applicable to these tanks.

Pursuant to 40 CFR 60.116b, the 15,000 gallon storage tanks shall maintain records for the life of the source in accordance with (1) through (2) below:

- (1) The dimension of the storage vessel; and
  - (2) An analysis showing the capacity of the storage vessel.
- (f) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.
  - (g) The potential to emit HAPs from the entire source is less than 10 tons per year for a single HAP and less than 25 tons per year for any combination of HAPs. Therefore, the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Miscellaneous Organic Chemical Manufacturing (40 CFR 63, Subpart FFFF) are not applicable.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

This source was constructed before 1974 and modified in 1977, 1983, 1986, 1991, and 1992. The source is a chemical plant and is in 1 of 28 source categories defined in 326 IAC 2-2-1(y)(1). The potential to emit of any regulated pollutant before control is less than 100 tons/yr. Therefore, the requirements of 326 IAC 2-2 are not applicable.

#### **326 IAC 2-4.1 (New Sources of Hazardous Air Pollutants)**

This source was constructed before 1974 and modified in 1977, 1983, 1986, 1991, and 1992. The potential to emit HAPs for the entire source is less than 10 tons/yr for a single HAP and less than

25 tons/yr for any combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

**326 IAC 2-6 (Emission Reporting)**

The source is located in Allen County and the potential to emit all criteria pollutants is less than one hundred (100) tons per year. Therefore, the 326 IAC 2-6 does not apply.

**326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability - Enamel Production Process**

**326 IAC 8-6 (Organic Solvent Emission Limitations)**

The enamel production process was constructed in 1977 and has potential VOC emissions less than 100 tons/yr. Therefore, the requirements of 326 IAC 8-6 are not applicable to this operation.

**326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)**

The Q mixer was constructed after January 1, 1980 and has the potential VOC emissions less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

Particulate emissions from each of the mixers and reactors shall not exceed the pound per hour limit listed in the table below:

| Unit ID     | Max. Throughput Rate of the Product (lbs/hr) | Particulate Emission Limit (lbs/hr) |
|-------------|--|-------------------------------------|
| Mixer #1    | 128  | 0.65                                |
| Mixer #2    | 255  | 1.03                                |
| Mixer #3    | 383  | 1.35                                |
| Mixer #4    | 128  | 0.65                                |
| Mixer #5    | 383  | 1.35                                |
| Mixer #6    | 383  | 1.35                                |
| Mixer #7    | 26   | 0.551                               |
| Reactor #8  | 511  | 1.64                                |
| Reactor #9  | 511  | 1.64                                |
| Reactor #10 | 192  | 0.85                                |
| Reactor #11 | 766  | 2.16                                |



| Unit ID    | Max. Throughput Rate of the Product (lbs/hr) | Particulate Emission Limit (lbs/hr) |
|------------|--|-------------------------------------|
| MR #13     | 128  | 0.65                                |
| MR #14     | 77   | 0.551                               |
| Reactor A1 | 511  | 1.64                                |
| T12        | 1,532  | 3.43                                |
| T-A1       | 511  | 1.64                                |
| Q Mixer    | 358  | 1.29                                |

The pounds per hour limitation was calculated with the following equation:

- (a) Interpolation of the data for the process weight between one hundred (100) to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where} \quad \begin{array}{l} E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour} \end{array}$$

- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions shall not exceed 0.551 lbs/hr when the maximum process weight rate is less than 100 lbs/hr.

According to the emission calculations (see Appendix A), the potential to emit PM from each of the mixers and reactors is less than the limit above. Therefore, the mixers and reactors of the enamel production operation are in compliance with 326 IAC 6-3-2.

#### State Rule Applicability - 1 MMBtu/hr Boiler

326 IAC 6-2-4 (PM Emissions for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4(a), indirect heating facilities constructed after September 12, 1983, shall be limited by the following equation:

$$P_t = \frac{1.09}{Q^{0.26}}$$

Where  $P_t$  = emission rate limit (lbs/MMBtu)  
 $Q$  = total source heat input capacity (MMBtu/hr)

However, 326 IAC 6-2-4(a) also states that if  $Q$  is less than 10 MMBtu/hr,  $P_t$  shall not exceed 0.6. Therefore, the PM emission limit for 1 MMBtu/hr boiler is 0.6 lbs/MMBtu.

#### State Rule Applicability - Storage Tanks

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

This source is not located in Clark, Floyd, Lake, or Porter County. Therefore, the requirements of 326 IAC 8-9-1 are not applicable to the storage tanks at this source.

#### Conclusion

The operation of this enamel manufacturing plant shall be subject to the conditions of the attached Minor Source Operating Permit 003-16740-00327.

**Appendix A: Emissions Calculations**  
**VOC and PM Emissions**  
**From the Mixers and Reactors**

**Company Name: The PD George Company**

**Address: 4300 New Haven Ave., Fort Wayne, IN 46803**

**MSOP: 003-16740-00327**

**Reviewer: ERG/YC**

**Date: August 7, 2003**

The mixing process at this source is a batch operation.

| Unit ID      | Unit Description        | Capacity (gal) | Year of Construction | *VOC Emission Rate (lbs/hr) | Max. Operation Hours (hr/yr) | PTE of VOC (tons/yr) | **PM/PM10 Emission Factor (lbs/ton) | Max. Product Produced (lbs/hr) | PTE of PM/PM10 Emissions (lbs/hr) | PTE of PM/PM10 Emissions (ton/yr) |
|--------------|-------------------------|----------------|----------------------|-----------------------------|------------------------------|----------------------|-------------------------------------|--------------------------------|-----------------------------------|-----------------------------------|
| Mixer #1     | Mixer                   | 500            | 1977                 | 0.19                        | 8239                         | 0.79                 | 4.7                                 | 128                            | 0.30                              | 1.31                              |
| Mixer #2     | Mixer                   | 1,000          | 1977                 | 0.38                        | 7717                         | 1.47                 | 4.7                                 | 255                            | 0.60                              | 2.63                              |
| Mixer #3     | Mixer                   | 1,500          | 1977                 | 0.57                        | 7196                         | 2.06                 | 4.7                                 | 383                            | 0.90                              | 3.94                              |
| Mixer #4     | Mixer                   | 500            | 1977                 | 0.19                        | 8239                         | 0.79                 | 4.7                                 | 128                            | 0.30                              | 1.31                              |
| Mixer #5     | Mixer                   | 1,500          | 1977                 | 0.57                        | 7196                         | 2.06                 | 4.7                                 | 383                            | 0.90                              | 3.94                              |
| Mixer #6     | Mixer                   | 1,500          | 1977                 | 0.57                        | 7196                         | 2.06                 | 4.7                                 | 383                            | 0.90                              | 3.94                              |
| Mixer #7     | Mixer                   | 100            | 1977                 | 0.04                        | 8656                         | 0.17                 | 4.7                                 | 26                             | 0.06                              | 0.26                              |
| Reactor #8   | Reactor                 | 2,000          | 1977                 | 1.37                        | 6674                         | 4.56                 | 4.7                                 | 511                            | 1.20                              | 5.26                              |
| Reactor #9   | Reactor                 | 2,000          | 1977                 | 1.37                        | 6674                         | 4.56                 | 4.7                                 | 511                            | 1.20                              | 5.26                              |
| Reactor #10  | Reactor                 | 750            | 1977                 | 0.51                        | 7978                         | 2.04                 | 4.7                                 | 192                            | 0.45                              | 1.97                              |
| Reactor #11  | Reactor                 | 3,000          | 1977                 | 2.05                        | 5631                         | 5.77                 | 4.7                                 | 766                            | 1.80                              | 7.89                              |
| MR #13       | Mixer/Reactor           | 500            | 1977                 | 0.19                        | 8239                         | 0.79                 | 4.7                                 | 128                            | 0.30                              | 1.31                              |
| MR #14       | Mixer/Reactor           | 300            | 1977                 | 0.11                        | 8447                         | 0.48                 | 4.7                                 | 77                             | 0.18                              | 0.79                              |
| Reactor AI   | amideimide reactor      | 2,000          | 1977                 | 1.37                        | 6674                         | 4.56                 | 4.7                                 | 511                            | 1.20                              | 5.26                              |
| T12          | cutting tank            | 6,000          | 1977                 | 2.29                        | 2503                         | 2.87                 | 4.7                                 | 1532                           | 3.60                              | 15.77                             |
| T-AI         | amideimide cutting tank | 2,000          | 1977                 | 0.76                        | 6674                         | 2.55                 | 4.7                                 | 511                            | 1.20                              | 5.26                              |
| Q mixer      | mixer tank              | 1,400          | 1997                 | 0.53                        | 7300                         | 1.95                 | 4.7                                 | 358                            | 0.84                              | 3.68                              |
| <b>Total</b> |                         |                |                      |                             |                              | <b>39.5</b>          |                                     | <b>6780</b>                    |                                   | <b>69.8</b>                       |

\* VOC emission rates were provided by the source and have been verified and found accurate.

\*\*PM10 emission factor is from "Airs Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants", EPA, 03/90. Assume all the PM emissions are equal to PM10 emissions

## METHODOLOGY

Max. Operation Hours = 8760 hr/yr - Time required between each batch [8760 hr/yr / 4 (hr/batch) x Max. Capacity (gal) / 2,100 (gal/batch)]

Potential to Emit VOC (tons/yr) = VOC Emission Rate (lb/hr) x Max. Operating Hours (hr/yr) x 1 ton/2000 lbs

Potential to Emit PM/PM10 (lbs/hr) = Max. Product Produced (lb/hr) x 1 ton/2000 lbs x PM/PM10 Emission Factor (lbs/ton)

Potential to Emit PM/PM10 (tons/yr) = Max. Product Produced (lb/hr) x 1 ton/2000 lbs x PM/PM10 Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/ 2000 lbs

**Appendix A: Emissions Calculations**  
**HAPs Emissions**  
**From the Mixers and Reactors**

**Company Name: The PD George Company**  
**Address: 4300 New Haven Ave., Fort Wayne, IN 46803**  
**MSOP: 003-16740-00327**  
**Reviewer: ERG/YC**  
**Date: August 7, 2003**

| Unit ID      | Unit Description        | Max. Capacity<br>(gal) | *PTE of VOC<br>(tons/yr) | Max. Total HAP<br>Content (%) | PTE of Total HAP<br>(tons/yr) | **Max. Xylene<br>Content (%) | PTE of Xylene<br>(tons/yr) |
|--------------|-------------------------|------------------------|--------------------------|-------------------------------|-------------------------------|------------------------------|----------------------------|
| Mixer #1     | Mixer                   | 500                    | 0.79                     | 88%                           | 0.69                          | 76.9%                        | 0.53                       |
| Mixer #2     | Mixer                   | 1,000                  | 1.47                     | 90%                           | 1.33                          | 81.1%                        | 1.07                       |
| Mixer #3     | Mixer                   | 1,500                  | 2.06                     | 90%                           | 1.85                          | 81.1%                        | 1.50                       |
| Mixer #4     | Mixer                   | 500                    | 0.79                     | 90%                           | 0.71                          | 81.1%                        | 0.57                       |
| Mixer #5     | Mixer                   | 1,500                  | 2.06                     | 90%                           | 1.85                          | 81.1%                        | 1.50                       |
| Mixer #6     | Mixer                   | 1,500                  | 2.06                     | 90%                           | 1.85                          | 81.1%                        | 1.50                       |
| Mixer #7     | Mixer                   | 100                    | 0.17                     | 90%                           | 0.15                          | 81.1%                        | 0.12                       |
| Reactor #8   | Reactor                 | 2,000                  | 4.56                     | 12%                           | 0.55                          | 0.0%                         | 0.00                       |
| Reactor #9   | Reactor                 | 2,000                  | 4.56                     | 12%                           | 0.55                          | 0.0%                         | 0.00                       |
| Reactor #10  | Reactor                 | 750                    | 2.04                     | 10%                           | 0.20                          | 0.0%                         | 0.00                       |
| Reactor #11  | Reactor                 | 3,000                  | 5.77                     | 10%                           | 0.58                          | 0.0%                         | 0.00                       |
| MR #13       | Mixer/Reactor           | 500                    | 0.79                     | 27%                           | 0.21                          | 78.0%                        | 0.17                       |
| MR #14       | Mixer/Reactor           | 300                    | 0.48                     | 27%                           | 0.13                          | 78.0%                        | 0.10                       |
| Reactor AI   | amideimide reactor      | 2,000                  | 4.56                     | 18%                           | 0.82                          | 80.0%                        | 0.66                       |
| T12          | cutting tank            | 6,000                  | 2.87                     | 33%                           | 0.95                          | 18.0%                        | 0.17                       |
| T-AI         | amideimide cutting tank | 2,000                  | 2.55                     | 18%                           | 0.46                          | 62.6%                        | 0.29                       |
| Q mixer      | mixer tank              | 1,400                  | 1.95                     | 12%                           | 0.23                          | 3.5%                         | 0.01                       |
| <b>Total</b> |                         |                        |                          |                               | <b>13.1</b>                   |                              | <b>8.20</b>                |

\* PTE of VOC is from page 1 of this Appendix.

\*\* The highest single HAP emissions are Xylene emissions.

#### METHODOLOGY

PTE of total HAPs (tons/yr) = PTE of VOC (tons/yr) x Max. HAP Content (%)

PTE of Xylene (tons/yr) = PTE of total HAP (tons/yr) x Max. Xylene Content (%)

**Appendix A: Emission Calculations**  
**Natural Gas Combustion**  
**(MMBtu/hr < 100)**  
**From 1 MMBtu/hr Boiler (Insignificant)**

**Company Name: The PD George Company**  
**Address: 4300 New Haven Ave., Fort Wayne, IN 46803**  
**MSOP: 003-16740-00327**  
**Reviewer: ERG/YC**  
**Date: August 7, 2003**

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

1.0

8.8

|                                      | Pollutant   |             |                 |                   |             |             |
|--------------------------------------|-------------|-------------|-----------------|-------------------|-------------|-------------|
| Emission Factor in lb/MMCF           | PM*         | PM10*       | SO <sub>2</sub> | **NO <sub>x</sub> | VOC         | CO          |
|                                      | 7.6         | 7.6         | 0.6             | 100               | 5.5         | 84.0        |
| <b>Potential Emission in tons/yr</b> | <b>0.03</b> | <b>0.03</b> | <b>2.6E-03</b>  | <b>0.44</b>       | <b>0.02</b> | <b>0.37</b> |

\*PM and PM10 emission factors are condensable and filterable PM10 combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

### Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton